

The following claims are presented for examination:

1. (currently amended) ~~Means-of Apparatus for~~ locomotion (10, 20, 30) with at least one surface (101, 201, 301), along which a surrounding medium flows during the movement of the ~~means-of apparatus for~~ locomotion (10, 20, 30), the at least one surface (101, 201, 301) having a structuring which comprises a multiplicity of ~~depressions and/or elevations~~ at least one of depressions and elevations (602, 702, 802, 902).
2. (currently amended) ~~Means-of Apparatus for~~ locomotion (10, 20, 30) according to Claim 1, the at least one surface (101, 201, 301) being designed in such a way that vortices form in the surrounding medium in the vicinity of the at least one surface (101, 201, 301) when the medium flows along the at least one surface (101, 201, 301).
3. (currently amended) ~~Means-of Apparatus for~~ locomotion (10, 20, 30) according to ~~one of the preceding claims, the depressions and/or elevations~~ Claim 1, the at least one of depressions and elevations (602, 702, 802, 902) being rounded in the region of the edge with respect to the rest of the surface (101, 201, 301).
4. (currently amended) ~~Means-of Apparatus for~~ locomotion (10, 20, 30) according to ~~one of the preceding claims, the depressions and/or elevations~~ Claim 1, the at least one of depressions and elevations (602, 702) being essentially in the form of a segment of ~~a sphere or of an ellipsoid~~ one of (i) a sphere and (ii) an ellipsoid.
5. (currently amended) ~~Means-of Apparatus for~~ locomotion (10, 20, 30) according to ~~one of the preceding claims~~ Claim 1, comprising a device for varying ~~the form and/or number of depressions and/or elevations~~ at least one of (i) the form of depressions, (ii) the form of elevations, (iii) the number of depressions, and (iv) the number of elevations (602, 702).
6. (currently amended) ~~Means-of Apparatus for~~ locomotion (10, 20, 30) according to ~~one of the preceding claims, the depressions and/or elevations~~ Claim 1, the at least one of depressions and elevations (602, 702, 802, 902) being arranged at least partially essentially periodically on the at least one surface (101, 201, 301).

7. (currently amended) ~~Means of Apparatus for~~ locomotion (10, 20, 30) according to ~~one of the preceding claims Claim 1~~, the at least one surface (101, 201, 301) comprising at least one first, essentially planar region (601) and at least one second, essentially curved region (901).

8. (currently amended) ~~Means of Apparatus for~~ locomotion (10, 20, 30) according to Claim 7, the ~~depressions and/or elevations at least one of depressions and elevations~~ (602, 902) in the at least one first region (601) and in the at least one second region (901) differing from one another in ~~form and/or size and/or arrangement at least one of (i) form, (ii) size, and (iii) arrangement~~.

9. (currently amended) ~~Means of Apparatus for~~ locomotion (10, 20, 30) according to Claim 7 ~~[[or 8]]~~, at least in the at least one first, essentially planar region (601) of the at least one surface (101, 201, 301), the center points of three directly adjacent depressions and/or elevations (602) forming an equilateral triangle, and the spacing of the center points of two adjacent depressions and/or elevations (602) having an essentially constant first value (t_2) and the spacing of two successive rows of depressions and/or elevations (602) having an essentially constant second value (t_1).

10. (currently amended) ~~Means of Apparatus for~~ locomotion (10) according to ~~one of the preceding claims Claim 1~~, designed as a land craft, ~~in particular as a rail vehicle or as a heavy goods vehicle or passenger car~~, comprising at least one outer casing, at least parts of the surface (101) of the outer casing having a multiplicity of ~~depressions and/or elevations at least one of depressions and elevations~~.

11. (currently amended) ~~Means of Apparatus for~~ locomotion (10) according to Claim 10, the formation of leeward rolls being reduced by means of the at least one surface (101) which has a multiplicity of ~~depressions and/or elevations at least one of depressions and elevations~~, as compared with an otherwise identical ~~means of apparatus for~~ locomotion in which the at least one surface has a smooth structure.

12. (currently amended) ~~Means of Apparatus for~~ locomotion (20) according to ~~one of the preceding claims, designed as an aircraft, in particular as an airplane or~~

~~helicopter, comprising at least one outer casing and/or one propeller and/or one rotor and/or one turbine and/or one wing and/or one airfoil and/or one tail unit, at least parts of the surfaces (201) of the outer casing and/or of the propeller and/or of the rotor and/or of the turbine and/or of the wing and/or of the airfoil and/or of the tail unit having a multiplicity of depressions and/or elevations~~
Claim 1, designed as an aircraft, comprising at least one of (i) an outer casing, (ii) a propeller, (iii) a rotor, (iv) a turbine, (v) a wing, (vi) an airfoil, and (vii) a tail unit, wherein at least parts of the surfaces (201) of the at least one of (i) the outer casing, (ii) the propeller, (iii) the rotor, (iv) the turbine, (v) the wing, (vi) the airfoil, and (vii) the tail unit have a multiplicity of at least one of depressions and elevations.

13. (currently amended) ~~Means of Apparatus for~~ locomotion (30) according to ~~one of the preceding claims Claim 1,~~ designed as a watercraft, comprising ~~at least one hull (31) and/or one propelling screw (33), at least parts of the surfaces (301) of the hull (31) and/or of the propelling screw (33) having a multiplicity of depressions and/or elevations~~ **at least one of (i) a hull (31) and (ii) a propelling screw (33), wherein at least parts of the surfaces (301) of the at least one of the hull (31) and the propelling screw (33) have a multiplicity of at least one of depressions and elevations.**

14. (currently amended) ~~Means of Apparatus for~~ locomotion (10, 20, 30) according to ~~one of the preceding claims Claim 1,~~ in which, by means of the at least one surface (101, 201, 301) which has a multiplicity of ~~depressions and/or elevations~~ **at least one of depressions and elevations** (602, 702, 802, 902), as compared with an otherwise identical ~~means of apparatus for~~ locomotion in which the at least one surface has a smooth structure, **one of the following is achieved:**

- the formation of drag eddies is reduced ~~and/or~~ ,
- the formation of leeward rolls is reduced ~~and/or~~ ,
- the flow resistance is reduced ~~and/or~~ ,
- the position of the flow breakaway is displaced rearward in relation to the direction of movement of the ~~means of apparatus for~~ locomotion (10, 20, 30) ~~and/or~~ ,
- the generation of noise is reduced ~~and/or~~ , **and**
- the generation of vibration is reduced.

15. (currently amended) ~~Means of Apparatus for~~ locomotion (10, 20, 30) according to ~~one of the preceding claims Claim 1~~, the deposition of particles on the at least one surface (101, 201, 301) which has a multiplicity of ~~depressions and/or elevations at least one of depressions and elevations~~ being reduced, as compared with a smooth surface, when a medium flows along the surface.

16. (currently amended) ~~Means of Apparatus for~~ locomotion (10, 20, 30) according to ~~one of the preceding claims Claim 1~~, the formation of ice on the at least one surface (101, 201, 301) which has a multiplicity of ~~depressions and/or elevations at least one of depressions and elevations~~ being reduced, as compared with a smooth surface, when a medium flows along the surface and the surface has a lower temperature than the medium.

17. (currently amended) ~~Use of a surface which has a multiplicity of depressions and/or elevations as a surface (101, 201, 301) of a means of locomotion (10, 20, 30) for the~~

- ~~— reduction in the formation of drag eddies and/or~~
- ~~— reduction in the formation of leeward rolls and/or~~
- ~~— reduction in the flow resistance and/or~~
- ~~— displacement of the position of the flow breakaway rearward in relation to the direction of movement of the means of locomotion (10, 20, 30) and/or~~
- ~~— reduction in the generation of noise and/or~~
- ~~— reduction in the generation of vibration and/or~~
- ~~— reduction in the deposition of particles when a medium flows along the surface and/or~~
- ~~— reduction in the formation of ice when a medium flows along the surface~~

A method for achieving a reduction in at least one of (i) the formation of drag eddies, (ii) the formation of leeward rolls, (iii) flow resistance, (iv) the generation of noise, (v) the generation of vibration, (vi) the deposition of particles when a medium flows along a surface, and (vii) the formation of ice when the medium flows along the surface, the method comprising using a surface that has a multiplicity of at least one of depressions and elevations as a surface (101, 201, 301) of an apparatus for locomotion (10, 20, 30).

- 18.** (currently amended) Layer ~~, in particular film,~~ for application onto ~~a surface or parts of a surface of a means of~~ at least parts of a surface of an apparatus for locomotion, the outside of the layer having a structuring which comprises a multiplicity of depressions and/or elevations at least one of depressions and elevations.
- 19.** (new) Layer according to claim 18 wherein the layer is film.